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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,168	10/02/2000	Robert Alan Cochran	10992806-1	4123

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EXAMINER
ROBINSON BOYCE, AKIBA K

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 09/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/678,168	COCHRAN, ROBERT ALAN	
	Examiner	Art Unit	
	Akiba K Robinson-Boyce	3623	

-- The MAILING DATE of this communication appears on th cover sh t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Status of Claims

1. The following is a first office action and the claims have been examined on the merits. Claims 1-20 are pending in this application. Claims 1-20 have been rejected.

Response to Amendment

2. The amendment to the claims filed on 6/26/01 does not comply with the requirements of 37 CFR 1.121(c) because there is no documentation of the rewritten claims that applicant states were previously requested. Amendments to the claims filed on or after July 30, 2003 must comply with 37 CFR 1.121(c) which states:

(c) *Claims.* Amendments to a claim must be made by rewriting the entire claim with all changes (*e.g.*, additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

(1) *Claim listing.* All of the claims presented in a claim listing shall be presented in ascending numerical order. Consecutive claims having the same status of "canceled" or "not entered" may be aggregated into one statement (*e.g.*, Claims 1–5 (canceled)). The claim listing shall commence on a separate sheet of the amendment document and the sheet(s) that contain the text of any part of the claims shall not contain any other part of the amendment.

(2) *When claim text with markings is required.* All claims being currently amended in an amendment paper shall be presented in the claim listing, indicate a status of "currently amended," and be submitted with markings to indicate the changes that have been made relative to the immediate prior version of the claims. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being

placed within double brackets if strike-through cannot be easily perceived. Only claims having the status of "currently amended," or "withdrawn" if also being amended, shall include markings. If a withdrawn claim is currently amended, its status in the claim listing may be identified as "withdrawn—currently amended."

(3) *When claim text in clean version is required.* The text of all pending claims not being currently amended shall be presented in the claim listing in clean version, *i.e.*, without any markings in the presentation of text. The presentation of a clean version of any claim having the status of "original," "withdrawn" or "previously presented" will constitute an assertion that it has not been changed relative to the immediate prior version, except to omit markings that may have been present in the immediate prior version of the claims of the status of "withdrawn" or "previously presented." Any claim added by amendment must be indicated with the status of "new" and presented in clean version, *i.e.*, without any underlining.

(4) *When claim text shall not be presented; canceling a claim.*

(i) No claim text shall be presented for any claim in the claim listing with the status of "canceled" or "not entered."

(ii) Cancellation of a claim shall be effected by an instruction to cancel a particular claim number. Identifying the status of a claim in the claim listing as "canceled" will constitute an instruction to cancel the claim.

(5) *Reinstatement of previously canceled claim.* A claim which was previously canceled may be reinstated only by adding the claim as a "new" claim with a new claim number.

Claim Objections

3. Claim 6 is objected to because of the following informalities: Claim 6 depends from itself. The examiner will interpret the claim as it depends from claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 6, 10, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Kilkki et al (US 6,011,778).

As per claims 1, 10, 15, Kilkki et al discloses:

establishing a pricing tier for each request generating device, a maximum rate of request servicing, and an expected time for serving a request at the maximum rate of request servicing/a memory that contains an established maximum rate of request servicing, an expected time for serving a request at the maximum rate of request servicing and a pricing tier for each request generating device and that contains/ wherein the maximum rate of request servicing is established via specification of a maximum rate of request servicing by the request generating device (Col. 5, lines 15-16, [charging based on NBR value represents pricing tier]), Col. 11, lines 19-20, [maximum NBR, represents maximum rate], Col. 3, lines 32-34, [NBR connection, represents request generating device], Col. 10, lines 10-26, [memory represents the memory]);

for each request generating device with a premium pricing tier, maintaining an instantaneous rate of request servicing by the request servicing device/for each request

generating device with a premium pricing tier, an instantaneous rate of request servicing by the request servicing device; (Col. 11, lines 22-24, [instantaneous NBR]);

control functionality that services electronic requests received from the request generating devices and that, following servicing of each request from a request generating device by the request servicing device, determines a time elapsed during servicing of the request so that, when the time elapsed during servicing of the request is less than the expected time for serving a request established for the request generating device/the control functionality calculates a remaining time equal to the difference between expected time for serving a request established for the request generating device, (Col. 5, line 60-Col. 6, line 1, [where the request generating device is represented by the UNI, and the request servicing device is represented by the NBR service connection],

determining a time elapsed during servicing of the request (Col. 12, line 57, [elapsed time]);

when the time elapsed during servicing of the request is less than the expected time for serving a request established for the request generating device,

calculating a remaining time equal to the difference between expected time for serving a request established for the request generating device and the time elapsed during servicing of the request, (Col. 14, lines 2-5, [where the servicing of the request is less than the expected time is represented by the positive number], Col. 12, lines 62-65, [difference in time]);

and waiting for a length of time based on the calculated remaining time prior to servicing another request for the request generating device/ and the time elapsed during servicing of the request and waits for a length of time based on the calculated remaining time prior to servicing another request for the request generating device, (Col. 14, lines 8-19, [where length of time is determined by priority level]).

As per claim 6, Kilkki et al discloses:

wherein the maximum rate of request servicing is established via specification of a maximum rate of request servicing by the request generating device, (Col. 11, lines 19-20 w/ Col. 6, lines 36-44, [UNI serves as the request generating device]).

As per claim 20, Kilkki et al discloses:

wherein the length of time based on the calculated remaining time determined by the request servicing device to be greater than the calculated remaining time for a request generating device is further determined to be a ratio multiplied by the calculated remaining time, the ratio calculated by dividing the instantaneous rate of request servicing by the expected time for serving a request, and wherein the length of time based on the calculated remaining time determined by the request servicing device to be less than the calculated remaining time for a request generating device is further determined to be a ratio multiplied by the calculated remaining time, the ratio calculated by dividing one by the difference between the expected time for serving a request and the instantaneous rate of request servicing, (Col. 22, lines 11-16).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 2-3, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilkki et al (6,011,778).

As per claims 2, 11, Kilkki et al discloses:

the calculated remaining time for a request generating device for which the established pricing tier is a basic pricing tier, (Col. 5, lines 15-16, [charging based on the duration of the connection];

the calculated remaining time for a request generating device for which the established pricing tier is a premium pricing tier and the instantaneous rate of request servicing is equal to the maximum rate of request servicing established for the request generating device/greater than the calculated remaining time for a request generating device for which the established pricing tier is a premium pricing tier and the instantaneous rate of request servicing is greater than the maximum rate of request servicing established for the request generating device; and less than the calculated remaining time for a request generating device for which the established pricing tier is a premium pricing tier and the instantaneous rate of request servicing is less than the maximum rate of request servicing established for the request generating device, (Col. 11, lines 22-24, [where Kilkki et al does not specifically state that the instantaneous rate equal to , greater than, or less than the maximum rate of request servicing, however,

this limitation is represented by the selection of the appropriate instantaneous NBR in relation to each price and quality of service for a service request]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the instantaneous rate to be equal to, greater than or less than the maximum rate of request servicing with the motivation of applying an appropriate value for the instantaneous rate depending on the details of the service request.

As per claims 3, 12, Kilkki et al discloses:

wherein the request generating device is a computer, (Col. 6, lines 37-41, [UNI=user network interface=a computer]).

9. Claims 4-5, 7-9, 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kilkki et al (6,011,778), in further view of Storch et al (US 5,920,846).

As per claims 4, 13, Kilkki et al fails to disclose, however Storch et al discloses:

wherein the request servicing device is an electronic data storage device, (Col. 9, lines 43-46, [data storage]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the request servicing device to be an electronic data storage device with the motivation of having means to save the request made by the user for future applications.

As per claims 5, 14, both Kilkki et al and Storch et al fail to disclose:

wherein the electronic data storage device is a disk array.

Official notice is taken that it is old and well known in the computer art for an electronic data storage device to be a disk array. It would have been obvious to one of

ordinary skill in the art at the time of the applicant's invention for the electronic data storage device to be a disk array with the motivation of having reliable and easily accessible means for retrieving stored data.

As per claim 7, 16, Kilkki et al fails to disclose, however Storch et al discloses:

wherein the maximum rate of request servicing is established by partitioning the capacity of the request servicing device among the request generating devices in order to provide, when possible, each request generating device with a maximum rate of request servicing specified by the request generating device, and otherwise to provide each request generating device with a maximum rate of request servicing proportional to a maximum rate of request servicing specified by the request generating device, (Col. 58, line 59-Col. 60, line 2, [time intervals being divided]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to partition the capacity of the request servicing device with the motivation of making it easier to service the requests in a shorter period of time.

As per claim 8, 17, Kilkki et al fails to disclose, however Storch et al discloses:

wherein the request servicing device may dynamically alter the maximum rate of request servicing provided to one or more request generating devices in accordance with a rate at which the request servicing device receives requests and according to the request servicing capacity of the request serving device, (Col. 59, lines 2-9, [overriding]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to alter the maximum rate of request servicing provided with the

motivation of adjusting rate request data in order to allow the requests to conveniently get serviced in an appropriate amount of time.

As per claim 9, 18, 19, Kilkki et al discloses:

increasing the instantaneous rate of request servicing for the request generating device by one following servicing of a request generated by the request generating device, and decreasing the instantaneous rate of request servicing for the request generating device by one at regular intervals of time/wherein separate execution threads in a firmware or software implementation of control functionality within the request servicing device increase the instantaneous rare of request servicing and decrease 5he instantaneous rate of request servicing, (Col. 14, lines 9-13, [decrease or increase priority level]);

Kilkki et al fails to disclose, however Storch et al discloses:

initially setting the instantaneous rate of request servicing for a request generating device to one request divided by the expected time for serving a request at the maximum rate of request servicing established for the request generating device(Col. 1, lines 50-51, [time division multiplexing]).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to initially set the instantaneous rate of request servicing for a request generating device to one request divided by the expected time for serving a request with the motivation of servicing the request at a considerable amount of time.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akiba K Robinson-Boyce whose telephone number is 703-305-1340. The examiner can normally be reached on Monday-Friday, 8:30 am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7238 [After final communications, labeled "Box AF"], 703-746-7239 [Official Communications], and 703-746-7150 [Informal/Draft Communications, labeled "PROPOSED" or "DRAFT"].

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

A. R. B.

TARIQ R. HAFIZ
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